

Page 8, please replace the paragraph on lines 24-28 with the following rewritten paragraph:

F3
The invention particularly provides an oligonucleotide, polypeptide, nucleic acid or protein comprising the entire sequence of the CHD-gene of a bird and more preferably comprising the entire amino acid or nucleotide sequence of the chicken as set out in any one of Fig. 1 (SEQ ID NO: 1), Fig. 3 (SEQ ID NOS: 2-9), Fig. 5 (SEQ ID NO: 10), Fig. 7 (SEQ ID NOS: 11-14), Fig. 8 (SEQ ID NO: 15), Fig. 9 (SEQ ID NOS: 16-19), Fig. 10 (SEQ ID NOS: 20-21), and Fig. 11 (SEQ ID NOS: 22-30).

Page 14, please replace the paragraph on lines 17-21 with the following rewritten paragraph:

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In addition, the nucleotide sequence of the CHD-genes are sufficiently conserved so that CHD primers can be designed that will allow PCR in a range of bird species. The primers P1 (SEQ ID NO: 37), P2 (SEQ ID NO: 39) and P3 (SEQ ID NO: 38) shown in Figure 14 will allow CHD-W and CHD-1A amplification in a range of birds that allows sex to be identified.

Page 27, please replace the paragraph on lines 2-14 with the following rewritten paragraph:

F4
The procedure was published in Griffiths & Tiwari (1995) which covers the extraction of the DNA. The second test was to provide DNA from a Hyacinth Macaw which would yield data to allow construction of primers. A IFIG II library was provided by Stratagene and this was probed with the insert of the *CHD-1A* clone Z6 (-227-5302 Fig. 6) at moderate stringency. This provided 7 positive clones (A1, A2, A7, A8, A13, 1.2 and 5C). The inserts were extracted cut with *Mbo*I and subcloned into the *Bam*I cut pUC18. This sublibrary was probed again with the Z6 insert but this time at high stringency. The A12.3 subclone hybridized. This was sequenced (SEQ ID NO: 36) and contained 111bp which is aligned to the chicken and mouse CHD genes (SEQ ID NOS: 31, 32 and 34) in Fig. 14. The similarity of this fragment to the chicken *CHD-W* suggested this was the Hyacinth Macaw homologue of the W chromosome located gene.

Page 27, please replace the paragraph on lines 15-29 with the following rewritten paragraph:

The data from A12.3 supplied information for the design of the primers required. It also provided evidence that the CHD sequences were sufficiently conserved in this region that a single set of primers could be designed to amplify both genes. Three primers, P1, P2 and P3 were designed to allow seminested PCR (Fig. 14). This technique allowed amplification of a 104 bp region of both *CHD-W* (SEQ ID NO: 35) and *CHD-1A* (SEQ ID NO: 33) from DNA that was available from two captive Spix's Macaws of known sex. In each sex the PCR products were of the same size but sequence determination revealed that the *CHD-W* derived PCR product possessed a *Ddel* restriction enzyme site which was lacking in the *CHD-1A* product. Thus PCR amplification and *Ddel* cleavage of male Spix's Macaw DNA yields a only single product of 104 base pairs (bp), whilst from female DNA two products are apparent, one of 104 bp and one of 73 bp. The presence of the *CHD-1A* product in both sexes acts as a control to ensure the PCR amplification has been successful (Fig 15 & 16).